

The WB logo, featuring a shield with the letters "W" and "B" inside.

*Compliments of*  
H. M. WARNER  
*President,*  
Warner Bros. Pictures, Inc.



# VITAPHONE

## The Biggest Thing In The Last Forty Years

MORE THAN twenty-five years ago, H. G. Wells, in "When the Sleeper Wakes," described an invention of the future. On a smooth white surface, a yard square, "The Sleeper" saw miniature human figures moving about and heard them talk and sing. It was "exactly like reality, viewed through an inverted opera glass and heard through a long tube."

At that time, when both phonographs and motion pictures were doubtful experiments, Wells's imagination performed the feat of predicting them, not only perfected, but combined. Wells, however, set their time in the story as two hundred years afterward—A.D. 2099. He was 175 years out of the way. Today, A.D. 1927, his prediction has come to pass. Vitaphone is the fulfillment of it beyond Wells's most extravagant dreams.

### The Future

*Following the introduction of Vitaphone at the Warner Theatre, the New York Times said editorially:*

"The future of this new contrivance is boundless; for inhabitants of small and remote places will have the opportunity of listening to and seeing grand opera as it is given in New York and in musical centers of Europe. Besides, through the picturing of the vocalists and small groups of musicians or choirs or orchestras, the Vitaphone will give its patrons an excellent idea of the singer's acting and an intelligent conception of the efforts of musicians and their instruments. Operatic favorites will be able to be seen as well as heard, and the genius of singers and musicians who have passed will still live."

W. C. DURANT, regarded in business as one of the leading figures in the security market, predicted in 1908 that General Motors would earn more money than the United States Steel Corporation. That prediction, which in 1908 sounded fantastic, has become part of financial history in 1927.

Recently Mr. Durant volunteered another prediction. In an interview with B. C. Forbes that appeared in Forbes' Magazine for February, he said:

**"THE thing that has the biggest possibilities of anything and everything I have come across in the last forty years is Vitaphone."**

Other dreamers became active as soon as motion pictures became profitable.

Time and again the problem of having sound and motion in step seemed on the point of solution. The disappointments resulting were so many and so heart-breaking, however, that men who were interested despaired of ever having their ambitions realized.

At length the term, "audible pictures," became anathema to the magnates of the film industry. Nearly every one of them at one time or another had plunged financially into the problem of giving the screen the flexibility of oral sound, and the losses these pioneers had suffered brought painful memories.

#### The Warner Brothers' Part

This was the condition of things when a hint floating about reached the ears of the Warner Brothers that the Bell Telephone Laboratories had made a number of discoveries tending to the perfect synchronization of sound and motion.

"What a wonderful thing this would be if it could be brought about!" exclaimed Harry M. Warner to his brother Sam.

"Well," came the reply, "let us look into it. Maybe they are on the road to something worth while."

What Sam Warner found was that certain basic principles in making pictures audible had been solved. While there were many problems yet to be ironed out, enough had been accomplished to cause Mr. Warner to become enthusiastic. This enthusiasm spread to H. M. Warner and was shared by Albert and Jack L. Warner.

The mere fact that they were facing something, the failure of which would plunge them into financial ruin, didn't feaze the Warners. Harry M. Warner remarked that this thing which was to be known as Vitaphone, living sound, must not fail. No one was to think of failure. That was all there was to it.

With the resources of the Warners at work there began a series of ex-

periments at the studio of the firm in Brooklyn. Then there came a period of depression and likewise periods of exultation. A time came when the engineers, carried away by a new lead and a new promise, forgot to eat and worked all night.

#### Screen History

Bit by bit things got clearer and hope became stronger, with the result that the Warners plunged deeper into the enterprise by taking over the huge and expensive Manhattan Opera House in New York for the continuation of the experiments and as a studio for the screening of artists. In addition to this the Warner Theatre was called into use for practical demonstrations. There in the wee sma' hours of the morning the engineers would experiment and discuss such problems as how to keep the sound uniform and natural with the action in synchronization with the shifting of the picture reels going from one projection machine to another.

Vitaphone received its first public hearing on August 6, 1926, at the Warner Theatre in New York, in conjunction with the appearance of John Barrymore in "Don Juan." Public and press united to acclaim the new miracle of science.

"Marvelous! — Uneanny!" said the Times, and other newspapers heralded Vitaphone as starting a new era in the screen world, an era that would revolutionize entertainment.

### Vitaphone

*No longer count the lyric art  
A fading dream to haunt the  
heart—  
The singer and the song long  
gone,  
Both in immortal youth live on.*

—HARRY LEE.

# Revolutionizing the Motion Picture Industry

## VITAPHONE UP TO THE PRESENT

First public hearing, Warner Theatre, New York, August 6, 1926, as accompaniment to the Warner Bros. picture, "Don Juan," starring John Barrymore. The picture was preceded by a Vitaphone program that included the N. Y. Philharmonic Orchestra, conducted by Henry Hadley, playing the "Tannhauser" overture; Giovanni Martinelli, singing the "Vesti la giubba" from "I Pagliacci"; Marion Talley, singing the "Caro nome" from "Rigoletto"; Anna Case in a one-act opera, "La Fiesta"; violin solos by Efrem Zimbalist and Mischa Elman, and a piano solo by Harold Bauer.

As this book goes to press, eight months later, this production is still running at the Warner Theatre, and playing to the capacity of the playhouse. Meanwhile, the production has duplicated its New York triumph in other cities. It played for four months at McVicker's Theatre, Chicago; four months at Grauman's Egyptian, Los Angeles; two months at the Colonial Theatre, Boston; two months at the Shubert-Lafayette Theatre, Detroit, and two months at the Capital Theatre, St. Louis. But even more interesting results were obtained in its runs in some smaller cities. It played five weeks at the Rialto Theatre, Newark, breaking all records for length of run and gross receipts for any attraction, musical or theatrical, in the state of New Jersey, and it played for five weeks at Bridgeport, Conn., an unheard of run for a city of that size. In this city of 150,000 inhabitants it was applauded by no less than 100,000 people as proved by box-office receipts.

THE second Vitaphone production was made in conjunction with the Warner Bros. Picture, "The Better 'Ole," starring Syd Chaplin, at the Colony Theatre, New York. This production, with Vitaphone accompaniment, brought to the screen such musical comedy celebrities as Al Jolson, Elsie Janis, George Jessel and Eugene and Willie Howard, as well as Reinold Werrenrath, the concert star, and Bruce Bairnsfather, author of "The Better 'Ole."

The third Vitaphone production was "When a Man Loves," starring John Barrymore at the Selwyn Theatre, New York. The accompaniment for this production was written by Henry Hadley, the eminent American composer and director. It demonstrated the promise of scores being written directly for Vitaphone that may achieve the greatness of the most important operatic writing. Among those on the Vitaphone program were Gigli, Talley, Hackett, Jeanne Gordon, Mary Lewis, De Luca and Van and Schenck.

The phenomenal success of these three productions was followed in New York by the installation of Vitaphone at the Roxy Theatre, the biggest motion picture theatre in the world. The opening program included a tabloid version of "Carmen," with Martinelli as Don Jose and Jeanne Gordon as Carmen. At present Vitaphone is being installed in theatres of varying sizes throughout the country at the rate of five a week.

### Facts about VITAPHONE

1. As the phonograph records the voice and as motion pictures record figures in action, Vitaphone combines both records, solving the problem of making it appear that one is listening to the sound at its original source.
2. By it, the art of all musicians may be spread throughout the world and revived through all generations, exactly as when one is in the presence of the artists themselves.
3. It will not be confined to the entertainment field. Sermons by great preachers and lectures by great teachers will be available for world distribution.
4. Any picture which has been produced can be orchestrated, and the orchestration as perfectly synchronized for reproduction as if the films were taken and the music recorded simultaneously.
5. Sole rights to Vitaphone are vested in The Vitaphone Corporation, New York. The officers are: Walter J. Rich, president; Samuel L. Warner, first vice-president; C. C. Rich, second vice-president; Albert Warner, treasurer.

## H. M. Warner Makes a Prophecy

(From Motion Pictures Today—February 12, 1927)

IT IS Harry M. Warner speaking and here is his message to all of the motion picture business, a prediction, a prophecy:

"One year from today, the present wise men of the motion picture industry won't know the motion picture business—their own business. Make note of this and file it away for reference in February, 1928.

"We are now working a year and a half ahead. In the period I mention there will have been made and placed before the public 'Noah's Ark', 'The Jazz Singer' and 'Black Ivory', each made with one-third to one-half Vitaphone.

"Installations are going forward as fast as we can make them and all over the country theatres of varying sizes are making ready for the revolutionary development of the pictures so that in the time I mention the whole manufacture and exhibition of pictures will be vitalized into a living, speaking and playing institution for the providing of newer and greater entertainment, the spreading of knowledge by the spoken word as well as by the shadowed action; and only the man of imagination can predict the limits of this new creation of the newest and finest of the human arts."

We give important consideration to this prediction because we see before us now a twelve hundred seat house on Broadway, the Warner, grossing \$20,000 a week with the Vitaphoned "Don Juan," and across the street, the Colony, also a moderate capacity house, doing \$20,000 a week with the Vitaphoned "Better 'Ole," and down the way farther, at the Selwyn, the newest one, "When a Man Loves," the Vitaphoned Barrymore starring vehicle, riding into an astounding success.

We know also of the Metropolitan in Baltimore with \$2,800 intake in its first day of a Vitaphone picture, a figure never even approached in the house's history.

We know the Strand in Brooklyn is now to be a Vitaphone-equipped theatre and—but why go on? They are sweeping the country and competition proceeding in a leisurely and complacent way can scarcely hope to catch up even if they started right now full steam ahead.

It's in the air and in the ear. Watch for the fulfillment of Harry M. Warner's definite prophecy.

# The System By Which Vitaphone Is Operated

**T**HE SYSTEM by which Vitaphone is operated represents successful combination and conversion to motion picture use of three major research developments.

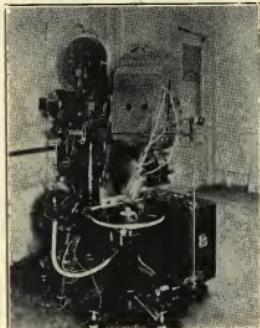
The first of these is the electrical system of recording. This method employs a high quality microphone of an improved type, electrical amplifying apparatus, and a record-cutting mechanism. Recording may be carried on at a considerable distance from the source of sound, so that the actors may be grouped naturally in any scene and need not be crowded before a microphone.

## Electrical Vibrations

The second essential feature is a remarkable electrical reproducer which converts the movements of a needle in the grooves of a sound record into electrical vibrations. The electrical currents from this device pass into an amplifier and then operate a high-quality loud transmitter of an improved type capable of filling practically any motion picture auditorium.

The third link is between the reproducer and the audience in a theatre. An adaptation of a transmitter system makes it possible to pick up electrical vibrations from the reproducer, amplify them, and, by means of properly-located loud transmitters, transform them into sound. The loudness is so regulated as to give the illusion that the source is

## THE MACHINE



The projection machine for Vitaphone. It is as easy to operate as the ordinary motion picture projector.

## THE RECORDING SYSTEM



Electrical sound recording system, which is one of the significant developments making possible synchronization of motion pictures with music, vocal and instrumental.

the actors whose pictures appear on the screen. In the case of musical programs, a specially constructed loud-speaking telephonic transmitter insures the correct values and naturalness.

## Ease of Operation

To effect the combination of these three factors in a complete system required the development of a mechanism for keeping the film and the sound-producing instrument in absolute synchronism, both during record-

ing and during reproduction. It was necessary that the system be capable of easy operation in a theatre, without requiring special skill. To meet these requirements, both the film and the sound device are set in their respective machines with a given marker in the proper place. The two machines are then speeded up from rest, together, by the simple device of having them coupled to opposite ends of the same motor. The mechanism for taking the pic-

tures with these markers on the original film and record could not be accomplished in so simple a manner, since the camera had to be left free to be moved on its tripod to change the angle of view. In this case two motors are used, one to drive the camera and one to drive the sound-recording machine. An ingenious electrical gearing device was developed whereby the two machines can be started from rest and maintained in synchronism not only after they are up to speed, but during the period when they are speeding up.

The most difficult part of the development of Vitaphone was the reproduction of music or speech from the apparatus in such a manner that it would be as loud as music or speech from a real performance and at the same time a faithful copy in all respects. The special electrical device for converting the motion of the needle bearing on the record into electrical vibrations and the use of a modified transmitting system overcame these difficulties.

## THE BOOTH



The sound proof booth which encloses the camera. Were it not made sound proof, extraneous noises would also be reproduced.

## VIBRATIONS IN WAX



Recording apparatus showing the wax disc. The technician is shown examining the grooves in which sound vibrations are recorded.

## The Inventors

Vitaphone goes to the world without an individual being credited with the invention; it is a product of cooperative work conducted in modern industrial research laboratories. The problem of synchronizing sound and scene was solved through the combined efforts of scientists employed by the Western Electric Company and the Bell Telephone Laboratories.

# Vitaphone Stars—Metropolitan Opera and N. Y. Philharmonic



**FRANCES ALDA**  
Famous as Maman  
and Mimi. — Sings  
"The Star Spangled  
Banner" with Vitaphone orchestra.



**MARY LEWIS**  
American soprano  
Singing Southern songs in "Way  
Down South" scene.



**GIUSEPPE DE LUCA**  
Italian baritone.—In Rigoletto quartette.



**MARION TALLEY**  
American soprano —  
Gilda's music in  
"Rigoletto" quartette.



**BENIAMINO GIGLI**  
Italian tenor. — Sings  
three numbers from  
"Cavalleria Rusticana."



**ERNESTINE SCHUMANN-HEINK**  
The greatest contralto of two  
generations.—Sings "Danny Boy,"  
"The Rosary," "Stille Nacht."



**GIOVANNI MARTINELLI**  
Italian dramatic tenor. —  
Sings "Pagliacci" and  
"Aida" arias.



**CHARLES HACKETT**  
American tenor. —  
Sings "Rigoletto"  
arias — "Questa  
o quell' and "Don  
na e mobile."



**REINALD WISSENTH**  
American baritone. —  
Sings "Mandalay,"  
"Long, Long Trail,"  
and "Song of a  
Rose."



**JEANNE GORDON**  
Mezzo-Soprano  
Sings Carmen to afar  
in the first tone in  
lubidolous version of  
Bizet's opera.



**HENRY HADLEY**  
Philharmonic conductor and composer of  
Vitaphone score to "When a Man Loves."  
Below, the orchestra—107 men.



# Vitaphone Stars—Musical Comedy, Vaudeville and Concert



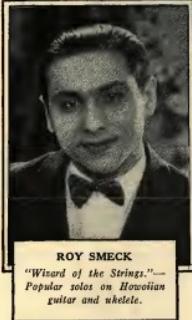
**GEORGE JESSEL**  
Star of "The Jazz Singer" and "Private Ivy Marry Me." Does comedy monologues. "A Peace With the World."



**AL JOLSON**  
Sings his most famous mammy songs and will sing "Rockabye Baby" and "The Red, Red Robin."



**ELSIE JANIS**  
Revue star. Sings "Moderato" and other tunes, accompanied by 103rd Regiment chorus.



**ROY SMECK**  
"Wizard of the Strings."—  
Popular solos on Hawaiian guitar and ukulele.



**JOHN BARCLAY**  
Baritone  
Impersonations of famous operatic stars, "Faust," "Boris," "Carmen."

**VAN and SCHENCK**

comedy show stars.—

songs: "I'm

Too," "How to Get

Gertie," "She Knows

Her Onions."

**JACK SMITH**  
Baritone  
Sings "Whispering Cecilia," "That's a Good Girl," and "Baby Face."



**EUGENE and WILLIE HOWARD**  
musical show comedians, in sketch, "Between the Acts of Grand Opera."



**WILL OAKLAND**  
Radio entertainer. "I'm a Dreamer," "Because I Love You," "Oh, How I Miss You Tonight," "I Wonder What's Become of Sally."



**ALBERT SPALDING**  
American violinist.—Sings from Chopin, Sarasate and Schubert.

**HAROLD BAUER**  
English Pianist  
Plays Chopin's Polonaise in A flat.



**MISCHA ELMAN**  
The Russian violinist.—Plays Dvorak's "Humoresque."

**EFREM ZIMBALIST**  
Russian violinist.—Phenomenal success in England and America.



# VITAPHONE

## *Far-Reaching Significance In Human Affairs*

### *Creating A New Art*

by

C. G. DU BOIS

Chairman of Board, Western Electric Company



C. G. DU BOIS

Vitaphone is not only an achievement of high scientific importance; it is an event of far-reaching significance in human affairs. It is natural to see and hear at the same time.

We may and we do artificially adapt our mental processes to either effect alone, but the combination of the two is what the mind instinctively seeks.

The Vitaphone does this and thereby creates a new art. Anyone may prophecy as to just what directions its uses and effects will take as the years go on. No one can doubt the great possibilities it contains for preserving and disseminating knowledge, understanding and culture.

### *Resurrection By Science*

by

MICHAEL I. PUPIN, PH.D., SC.D.

Professor of Electro-Mechanics, Columbia University  
President of the American Institute of Electrical Engineers



MICHAEL I. PUPIN

Just imagine watching Liszt today playing his piano as he played it many years ago and listening to the music which only his magic art could draw out of his obedient instrument. What a heavenly treat it would be today to look at Demosthenes of old and listen to his matchless oratory! I should give anything to look at Lincoln today and at the same time

listen to his Gettysburg speech. No closer approach to resurrection has ever been made by science. The educational value of this achievement is so obvious that comments are superfluous.

### *Vitaphone and Scientific Education*

by

EDWARD B. CRAFT

Bell Telephone Laboratories

The Faraday of the future, the Pasteur and the Galileo may, by Vitaphone, make available to students in any place or at any subsequent time a demonstration of their scientific researches and synchronize therewith their own comments, discussions and even their personalities.

The communication and demonstration of scientific material will be facilitated and our entire educational process may undergo changes beyond the reach of our present imaginations.

From the beginning of the attempts to accomplish what Vitaphone now does with such precision, the problem was not so much that of synchronization of sound and picture as it was the recording and reproduction of the sound portion of the combination in such volume and with such clarity as to make it appear that one was listening to the sound at its original source.

We may well stop to realize that each achievement like that of the present has been accomplished through the painstaking labors of many scientific workers over long periods. These men have grasped nature's secrets and their researches now permit us to make nature obedient to our will in the wonderful ways of the present day.

### *"Neither Art Nor Artist Will Ever Die"*

by

WILL H. HAYS



WILL H. HAYS

What the telephone scientist learned in his search for the solution of specific problems involved in telephony found a by-product application in a field quite foreign to the main region of his interest.

With the means at his disposal for the faithful detection, registration and reproduction of intricate sounds at any desired level of loudness, the door to the successful synchronized motion picture commenced to open. Then came the co-operation of mechanical technique with the artistic technique. Vitaphone represents the consummation of these efforts.

Far, indeed, have we advanced from that few seconds of shadow of a serpentine dancer thirty years ago when the motion picture was born—to this public demonstration of the Vitaphone synchronizing the reproduction of sound with the reproduction of action.

The future of motion pictures is as far-flung as all the tomorrows, rendering greater and still greater service as the chief amusement of the majority of all our people and the sole amusement of millions and millions, exercising an immeasurable influence as a living, breathing thing on the ideas and ideals, the hopes and the ambitions of countless men, women and children.

In the presentation of these pictures, music plays an invaluable part. The motion picture is a most potent factor in the development of a national appreciation of good music. That service will now be extended as the Vitaphone shall carry symphony orchestras to the town halls of the hamlets.

It has been said that the art of the vocalist and instrumentalist is ephemeral, that he creates but for the moment. Now, neither the artist nor his art will ever wholly die.

# The Story Of The Four Warner Brothers

THE STORY of the Warner Brothers goes back to 1885 when Benjamin Warner left a little village in Poland close to the German line, and, going to Hamburg, sailed for Baltimore. He wanted to get away from Russian despotism and see that his children got a chance in life. They got it. There were four boys, Harry M., Albert, Samuel L. and Jack, and there were no lazy bones in their physical compositions. They turned their hands to selling papers—anything.

After ten years they left Baltimore. Youngstown, Ohio, beckoned and a bicycle repair shop bearing the names of Harry and Albert Warner was opened. Young Sam, interested in the theatre, obtained a job in an amusement park in Sandusky. Moving pictures were coming in at this time and at Sam's suggestion a classic film of its day, "The Great Train Robbery" was obtained and Sam and Albert toured the small towns of Ohio and Pennsylvania with it until a blizzard put them out of business.

#### The Bicycle Age Passes

Next they secured a house in Newcastle, Pa., but before they could open it they found they needed \$200 or \$300 to go on. But the brothers sold his bicycle business and furnished the needed money. It didn't take the brothers long to see that if they could make money with one film they could make a lot more by renting films to other exhibitors. And so it came about that they became exchange men and were on the road to prosperity when a combination of producers swept them and their business into financial obscurity.

The brothers were broke. It was clear that if they were to continue in motion pictures it must be as producers. But where was the money to come from that would establish them? Here is where Harry, the elder brother, came to the front.

Harry was never very communicative. He liked to think. His decisions were usually expressed with a thirst of words that would have done credit to a Scotchman promising an employee a raise in wages.

The eldest Warner just smiled at his brothers and remarked: "Don't worry; we'll get the money." And he did. The studio in Hollywood came into being and to-day the name Warner Brothers is known throughout the whole world wherever motion pictures are presented. Further than this the Warners are destined to be known the world over as the men who helped to develop Vitaphone and make this marvelous instrument the greatest invention in connection with moving pictures since the birth of motion pictures themselves.

## HORATIO ALGER, JR., ROMANCE IN REAL LIFE



In upper left hand corner, H. M. Warner,—to his right, Albert Warner.  
Below, Samuel L. Warner, and Jack L. Warner.

#### Backing Faith With Cash

It was Harry M. Warner who first saw the possibilities of Vitaphone and it is due to his courage that it is now revolutionizing the cinema industry throughout the country. A man may have faith in a thing and let it go at that. Backing his faith with money is something else. Harry M. Warner backed his faith with

money, much money, and while things looked very dreary at times and the inventors seemed to be up against stone walls, he never lost courage.

Success has not made an atom of difference to the brothers. Harry is looked to as their oracle. They have absolute confidence in him. Recently when their father and mother celebrated the fiftieth anniversary

of their wedding the "boys" took a day off and visited them in the old Ohio town.

Something more about them. They maintain a joint bank account into which all four deposit and from which all four withdraw. Such are the four Warners and such is Harry M. the brother who guided them to their present exalted position in the cinema industry.

# *The First Three Pictures Produced with Vitaphone Scores*



**JOHN BARRYMORE**

In "Don Juan"

*The picture that introduced Vitaphone to the world. Above, Barrymore, as the great amoret. To the left, a scene with Estelle Taylor, who plays Lucretia Borgia. To the right, the Bacchanale.*



**SYD CHAPLIN**

In "The Better 'Ole"

*This second Vitaphone picture has already had a longer run in New York than any comedy picture ever produced. Chaplin plays Old Bill, the hero of Bruce Bairnsfather's war cartoons.*



**JOHN BARRYMORE**  
In "When a Man Loves," featuring  
Dolores Costello

*The Vitaphone score for this romance of France is the first of its kind ever composed by Henry Hadley, associate conductor of the New York Philharmonic Orchestra.*





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